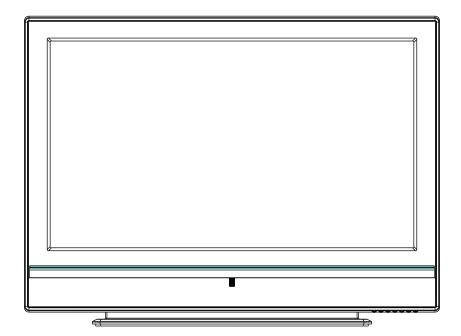




PS-3227P

Operating Manual



Before connecting, operating or adjusting this product, please read the manual completely. Please keep this manual for future reference.

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Important Information

WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPARATUS TO RAIN OR MOISTURE.



CAUTION

RISK OF ELECTRIC SHOCK DO NOT OPEN



CAUTION-To reduce the risk of electric shock, do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so.



The lightning flash with arrowhead symbol, within an equilateral triangle is intended to alert the user to the presence of uninsulated dangerous voltage within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

This product utilizes tin-lead solder, and fluorescent lamp containing a small amount of mercury. Disposal of these materials may be regulated due to environmental considerations. For disposal or recycling information, please contact your local authorities or the Electronic Industries Alliance: www.eia.org

FCC STATEMENT

FCC Notice

PDP TV: A CLASS B digital device

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment.

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

FCC CAUTION:

Pursuant to 47CFR, Part 15.21 of the FCC rules, any changes or modifications to this monitor not expressly approved by the manufacturer could cause harmful interference and would void the user's authority to operate this device.

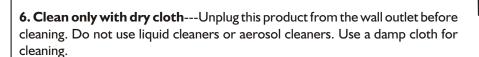
WARNING: This is a CLASS B product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures to counter interference.

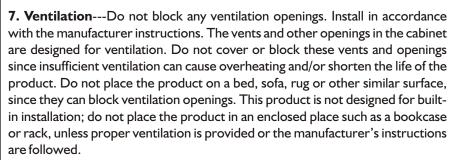
Important Safety Precautions

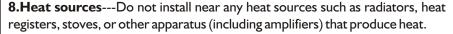
Electrical energy can perform many useful functions, but it can also cause personal injuries and property damage if improperly handled. This product has been engineered and manufactured with the highest priority on safety. But IMPROPER USE CAN RESULT IN POTENTIAL ELECTRICAL SHOCK OR FIRE HAZARD. In order to prevent potential danger, please observe the following instructions when installing, operating and cleaning the product. To ensure your safety and prolong the service life of your TV product, please read the following precautions carefully before using the product.

- 1. Read these instructions---All operating instructions must be read and understood before the product is operated.
- 2. Keep these instructions---These safety and operating instructions must be kept in a safe place for future reference.
- 3. Heed all warnings---All warnings on the product and in the instructions must be observed closely.
- **4. Follow all instructions**---All operating instructions must be followed.
- **5.** Do not use this apparatus near water---for example, near a bathtub, washbowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool, and the like.

Do not use immediately after moving from a low temperature to high temperature environment, as this causes condensation, which may result in fire, electric shock, or other hazards.









- **9.Grounding or Polarization**---Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- **I 0.Power cord protection**---Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.

NOTE: where the mains plug or an appliance coupler is used as the disconnect device, the disconnect device shall remain readily operable.

II.Attachments---Only use attachments/accessories specified by the manufacturer. Do not use attachments not recommended by the manufacturer. Use of improper attachments can result in accidents.



Important Safety Precautions (Continued)

12. Stand---Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. Do not place the product on an unstable trolley, stand, tripod or table. Placing the product on an unstable base can cause the product to fall, resulting inserious personal injuries as well as damage to the product. When mounting the product on a wall, be sure to follow the manufacturer's instructions. Use only the mounting hardware recommended by the manufacturer.



13. Move carefully---When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over. Sudden stops, excessive force and uneven floor surfaces can cause the product to fall from the trolley.

Never attempt to move the TV unless the AC power cord has been disconnected.



14. Lightning---Unplug this apparatus during lightning storms or when unused for long periods of time.

For added protection for this television equipment during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna. This will prevent damage to the equipment due to lightning and power-line surges.



- **I 5. Servicing---**Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
- **16. Replacement parts**—In case the product needs replacement parts, make sure that the service person uses replacement parts specified by the manufacturer, or those with the same characteristics and performance as the original parts. Use of unauthorized parts can result in fire, electric shock and/or other danger.
- **17.Overloading**---Do not overload wall outlets, extension cords, or convenience receptacles on other equipment as this can result in a risk of fire or electric shock.
- **18.Entering of objects and liquids**---Never insert an object into the product through vents or openings. High voltage flows in the product, and inserting an object can cause electric shock and/or short internal parts. For the same reason, do not spill water or liquid on the product.
- **19.Damage requiring service**----If any of the following conditions occurs, unplug the power cord from the AC outlet, and request a qualified service person to perform repairs.
- a. When the power cord or plug is damaged.
- b. When a liquid is spilled on the product or when objects have fallen into the product.
- c. When the product has been exposed to rain or water.
- d. When the product does not operate properly as described in the operating instructions.

Do not touch the controls other than those described in the operating instructions. Improper adjustment of controls not described in the instructions can cause damage, which often requires extensive adjustment work by a qualified technician.

- e. If the product has been dropped or the cabinet has been damaged in any way.
- f. When the product displays an abnormal condition or exhibits a distinct change in performance. Any noticeable abnormality in the product indicates that the product needs servicing.
- **20.Safety checks**---Upon completion of service or repair work, request the service technician to perform safety checks to ensure that the product is in proper operating condition.
- **21.Wall or ceiling mounting**---When mounting the product on a wall or ceiling, be sure to install the product according to the method recommended by the manufacturer. This is a safety feature.

Important Safety Precautions (Continued)

22. Power sourceThis product is intended to be supplied by a listed power supply indicated on the marking label. If you are not sure of the type of power supply to your home, consult your product dealer or local power company. For added protection for this product during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the cable system. This will prevent damage to the product due to lightning and power line surges. When the unit has to be used with another power supply voltage, the power cable must be changed. Consult your product dealer. The socket outlet should be installed near the equipment and easily accessible. Use only the power cord designated by our dealer to ensure safety and EMC. When connecting other products such as VCRs and personal computers, you should turn off the power of the unit for protection against electric shock.
23.Panel protection The display panel used in this product is made of glass. Therefore, it can break when the product is dropped or impacted upon by other objects. Be careful not to be injured by broken glass pieces in case the display panel breaks.
24.Pixel defect The display panel is a very high technology product, giving you finely detailed pictures. Occasionally, a few non-active pixels may appear on the screen as a fixed point of blue, green or red. Please note that this does not affect the performance of your product.
WARNING: For continued safety, apparatus with class I construction shall be connected to a mains socket outlet with a protective earthing connection.

Important Notice

About Temperature

Do not use in hot and cold rooms (locations)

- When the unit is used in rooms (locations) with low temperature, the picture may leave trails or appear slightly delayed. This is not a malfunction, and the unit will recover when the temperature returns to normal.
- Do not leave the unit in a hot or cold location. Also, do not leave the unit in a location exposed to direct sunlight or near a heater, as this may cause the cabinet to deform and the screen to malfunction.
- Storage temperature: 0°C to +50°C
 Working temperature: 5°C to +40°C

Cleaning and Maintenance

The front of the display panel has been specially treated. Wipe the panel surface gently using only a cleaning cloth or a soft, lint-free cloth.

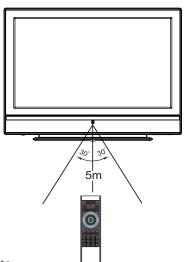
- If the surface is particularly dirty, soak a soft, lint-free cloth in a weak detergent solution and then wring the cloth to remove excess liquid. Use this cloth to wipe the surface of the display panel, then wipe it evenly with a dry cloth, of the same type, until the surface is dry.
- Do not scratch or hit the surface of the panel with fingernails or other hard objects. Furthermore, avoid contact with volatile substances such as insect sprays, solvents and thinner, otherwise the quality of the surface may be adversely affected.

If the cabinet becomes dirty, wipe it with a soft, dry cloth.

- If the cabinet is particularly dirty, soak the cloth in a weak detergent solution and then
 wring the cloth dry. Use this cloth to wipe the cabinet, and then wipe it dry with a dry
 cloth.
- Do not allow any detergent to come into direct contact with the surface of the Plasma Display.
- If water droplets get inside the unit, operating problems may result.
- Avoid contact with volatile substances such as insect sprays, solvents and thinner, otherwise the quality of the cabinet surface may be adversely affected or the coating may peel off. Furthermore, do not leave it for long periods in contact with articles made from rubber or PVC.

Using the Remote Control

■ Use the remote control by pointing it towards the remote sensor window of the set. Objects between the remote control and sensor window may prevent proper operation.



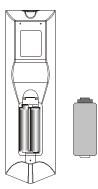
Cautions regarding use of remote control

- Do not expose the remote control to shock. In addition, do not expose the remote control to liquids, and do not place in an area with high humidity.
- Do not install or place the remote control under direct sunlight. The heat may cause deformation of the unit.
- The remote control may not work properly if the remote sensor window of the main unit is under direct sunlight or strong lighting. In such a case, change the angle of the lighting or the TV set, or operate the remote control closer to the remote sensor window.

Installing the Batteries

If the remote control fails to operate the TV functions, replace the batteries in the remote control.

- Open the battery cover.
- 2 Insert two size-AAA batteries.
 - (Place the batteries with their terminals corresponding to the (+) and (–) indications in the battery compartment.)
- 3 Replace the cover and slide in reverse until the lock snaps.



Precaution on battery use

Improper use of batteries can result in a leakage of chemicals and/or explosion. Be sure to follow the instructions below.

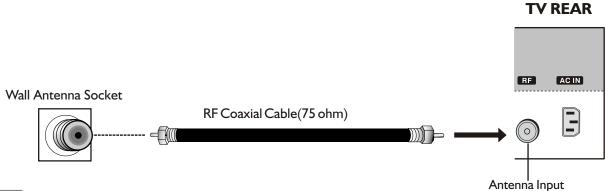
- \blacksquare Place batteries with their terminals corresponding to the (+) and (-) indications.
- Different types of batteries have different characteristics. Do not mix batteries of different types.
- Do not mix old and new batteries. Mixing old and new batteries can shorten the life of new batteries and/or cause old batteries to leak chemicals.
- Remove batteries as soon as they are non-operable. Chemicals that leak from batteries can cause a rash. If chemical leakage is found, wipe with a cloth.
- If the remote control is not used for an extended period of time, remove the batteries from the remote control.
- The batteries (battery pack of batteries installed) shall not be exposed to excessive heat such as sunshine, fire or the like.

Preparations (Continued)

Antenna Connection

INSTALL the unit in a room where direct light will not fall upon the screen. Total darkness or a reflection on the picture screen may cause eyestrain. Soft and indirect lighting is recommended for comfortable viewing.

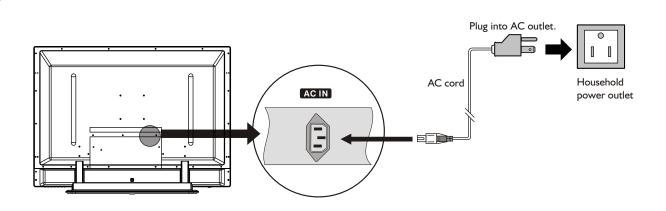
Optimum reception of colour requires a good signal and will generally mean that an outdoor antenna must be used. The exact type and position of the antenna will depend upon your particular area.



Note

- It is recommended that the 75-ohm coaxial cable be used to eliminate interference and noise which may occur due to radio wave conditions.
- The antenna cable should not be bundled with the power cord and the like.
- If the antenna is not installed properly, contact your dealer for assistance.

Power Connection



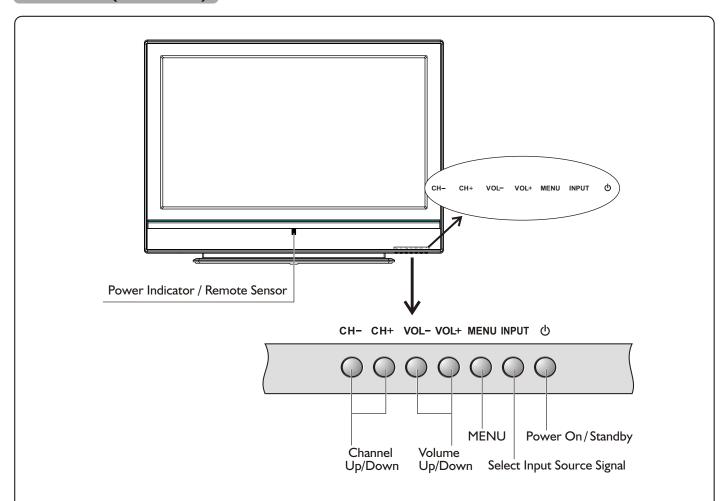
- I. Connecting the female plug to the AC socket on the unit.
- 2. Connecting the male plug to the wall outlet as illustrated.

Note

- This product should be operated only from the type of power source indicated on the marking label.
- Always unplug the AC cord from power outlet when not using for a long period of time.

Identification of Controls

Main Unit (front view)



I. POWER ₺

Press this button to turn the unit ON from STANDBY mode. Press it again to turn the set back to STANDBY.

2. INPUT

To access input source menu

3. MENU

Press this button to access the menu main page

4. VOL+/-

Press the **VOL+** or **VOL-** button to directly increase or decrease the sound volume level;

In menu operations, these buttons serve as right/left buttons.

5. CH+/-

Press these two buttons to directly change the TV channel;

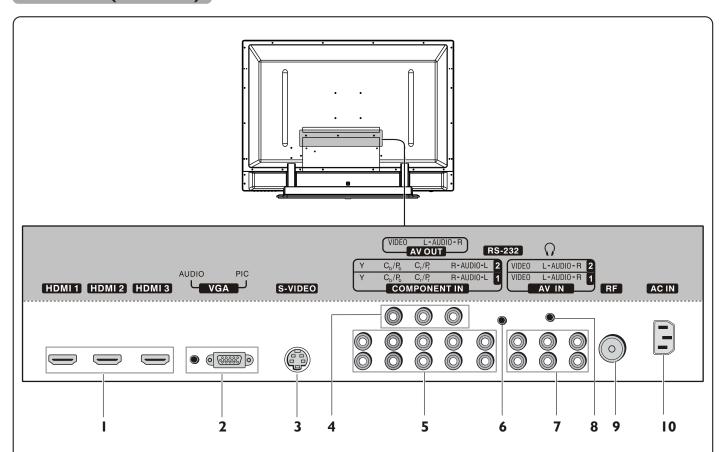
In menu operations, these buttons serve as up/down buttons.



Functions of CH+/-, VOL+/-, MENU, INPUT and POWER <math>0 are also provided to the remote control. This operation manual provides a description based on operating functions with the remote control.

Identification of Controls (Continued)

Main Unit (rear view)



- I HDMI input 1/2/3: HDMI (High-Definition Multimedia Interface) provides an uncompressed, all-digital audio/video interface between this TV and any HDMI-equipped audio/video component, such as a set-top box and DVD player. HDMI supports enhanced, or high-definition video, plus two-channel digital audio.
- 2 VGA PIC(Video)/AUDIO input: Connects to a PC or other Analog RGB devices such as Video Conferencing.
- 3 S-VIDEO input: Connects to the S-VIDEO output jack of your VCR or other video equipment that has S-VIDEO. S-VIDEO provides better picture quality than the composite video connection.
- **4 AV OUTPUT:** Connects to your VCR to record programs as desired or connects to your audio amplifier. Only analog TV programs, AVI and AV2 input sources can be output through the AV output jacks.
- 5 COMPONENT INPUT 1/2: Connects to your DVD player.
 Component video provides better picture quality than the S-VIDEO or the composite video connections.
- **6 RS 232 terminal:** For service only. The user should not use this terminal.
- 7 AV INPUT I/2: Connects to the composite video and audio output jacks on your VCR or other video device.
- **8 Headphones jack:** Connects to your headphones. If your headphones do not match the jack, use a suitable plug adaptor (not supplied).
- 9 RF input: Connects to your cable system or outdoor antenna.
- **10 AC power input:** Power cord socket.

Remote Control Unit



- POWER: Switches the TV power on or Standby.
- 2 **INPUT:** Displays input source menu.
- **3 ADJUST:** Adjusts the picture automatically in PC mode.
- 4 **MUTE:** Mutes the sound.
- 5 CH+/-(▲/▼), VOL+/-((/)), MENU: Menu navigation buttons.

CH+/-(▲/▼): Changes channel up and down. Press to move up or down in the menu.

VOL+/-(◀ / ▶): Increases or decreases the volume. Press to move left or right in the menu or to adjust a menu setting.

MENU: Displays the main menu screen.

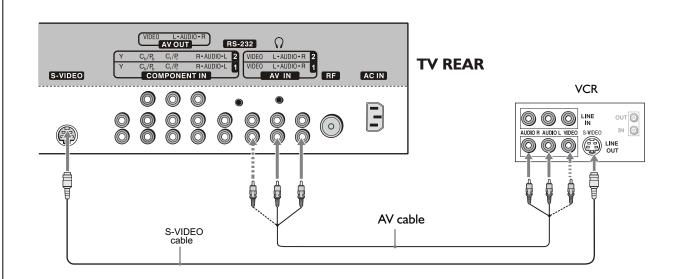
- **6 SOUND:** Selects sound mode.
- **7 FREEZE:** To freeze the current picture.
- 8 MTS: To select STEREO, SAP or MONO sound.
- 9 0 9 number buttons: Press to enter channel numbers or input password.
- **10 CLOSED CAPTION:** Selects closed caption mode.
- **II ZOOM:** Selects the screen size.
- 12 PICTURE: Selects picture mode.
- 13 SLEEP: Sets the sleep timer.
- **14 DISPLAY:** Displays the current channel status or signal information.
- **15** NR: To turn on/off noise reduce function.
- **16 PREVIOUS button** : Returns to the previous channel.

Connections

Cautions Before Connecting

- Carefully check the terminals for position and type before making any connections.
- The illustration of the external equipment may be different depending on your model.
- Loose connectors can result in image or colour problems. Make sure that all connectors are securely inserted into their terminals.
- Refer to the operating manual of the external device as well.
- When connecting an external device, turn the power off to avoid any issues.

Connecting a VCR



Cables are often color-coded to connectors. Connect red to red, white to white, etc.

How to connect:

Connect the Audio/Video cables between the Audio (L/R)/Video jacks on the unit and VCR.

Note: For better video, you can use the S-video terminal if your source supports it.

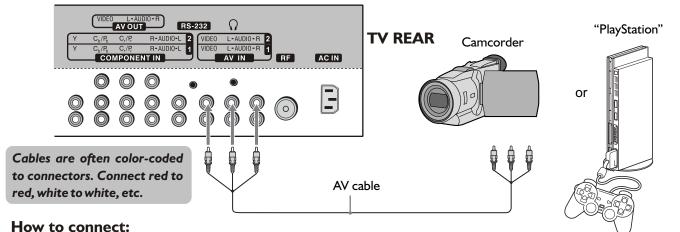
To play VCR

- 1. Turn on your TV, then press **INPUT** button. The **INPUT** menu opens.
- 2. Press ▲ or ▼ to select AV I (or SVIDEO if using S-VIDEO terminal), then press ◀ or ▶ to confirm.
- 3. Turn on your VCR, insert a videotape and press the **Play** button.

♦ Note

The S-VIDEO terminal share the same audio jacks with VIDEO I and has priority over the VIDEO I jack.

Connecting a Camcorder



Connect the Audio/Video cables between the Audio (L/R)/Video jacks on the unit and camcorder.

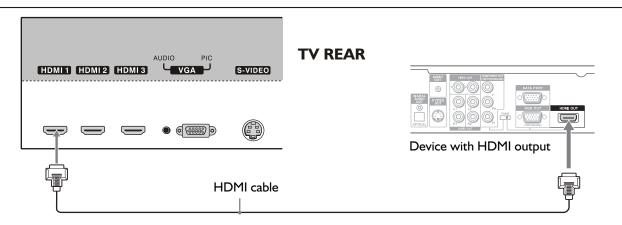
To playback Camcorder

- 1. Turn on your TV, then press **INPUT** button. The **INPUT** menu opens.
- 2. Press ▲ or ▼ to select **AV2**, then press ◀ or ▶ to confirm.
- 3. Turn on your camcorder and set it to output mode. (For details, refer to your camcorder user manual.)
- 4. Insert the tape into the camcorder and press Play button.



The operations of the camcorder may be different and is dependant on your model. Please read the user manual of your camcorder to confirm operation.

Connecting a HDMI device



How to connect a device using HDMI Connection:

Connect the HDMI cable between the HDMI interface on the unit and HDMI output on the device.

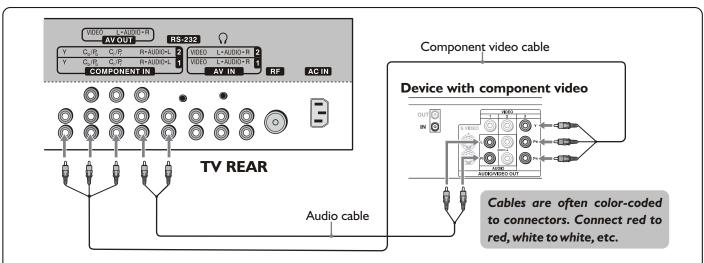
To play from the device using HDMI:

- 1. Turn on your TV, then press **INPUT** button. The **INPUT** menu opens.
- 2. Press ▲ or ▼ to select **HDMI1**, then press ◀ or ▶ to confirm.
- 3. Turn on your device and set it to the correct mode. See the device's user guide for more information.

Note

- If HDMI 2 interface is used, please select HDMI2 in the INPUT menu. If HDMI 3 interface is used, then select HDMI3 in the **INPUT** menu correspondingly.
- If the external device has DVI output only, use a DVI to HDMI adapter cable to connect to the HDMI terminal. Connect the audio cable to the VGA AUDIO IN jack on the TV rear.

Connecting Component Video



To connect a device using component video:

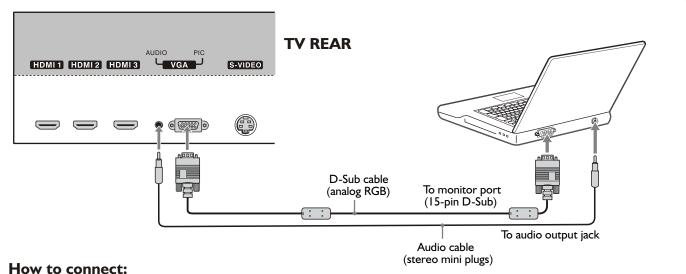
Connect the Component Video cable between the Y, Cb/Pb, Cr/Pr input jacks on the unit and Y, Cb/Pb, Cr/Pr output jacks on the device.

Connect the Audio cable between the AUDIO input jacks on the unit and AUDIO output jacks on the device.

To play component video from an external device:

- I. Turn on your TV, then press **INPUT** button. The **INPUT** menu opens.
- 2. Press ▲ or ▼ to select **YPBPRI** (or **YPBPR2**), then press ◀ or ▶ to confirm.
- 3. Turn on your external device and set it to the correct mode. See the device's user guide for more information.

Connecting a Computer



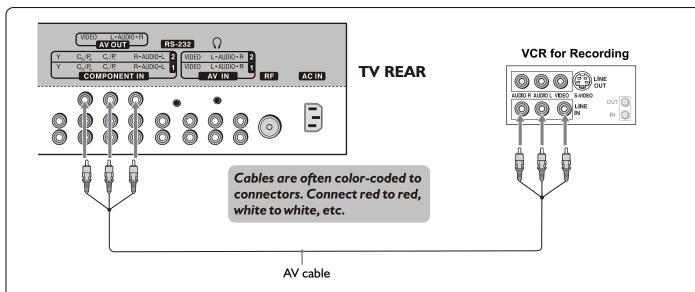
Connect a VGA cable between the VGA jack on the computer and the VGA input jack on the unit.

Connect an Audio cable between the AUDIO output on the computer and AUDIO input jack on the unit.

To play video from a computer

- I. Turn on your TV, then press **INPUT** button. The **INPUT** menu opens.
- 2. Press ▲ or ▼ to select **VGA**, then press ◀ or ▶ to confirm.
- 3. Turn on your computer, and adjust the display properties as required.

Connecting a VCR (for Recording)



How to connect:

Connect the Audio/Video cables between the Audio (L/R)/Video jacks on the unit and VCR.

To record program

- 1. Turn on your TV, select a program you wish to record.
- 2. Turn on your VCR, insert a videotape for recording.
- 3. Press the Record button to begin recording.

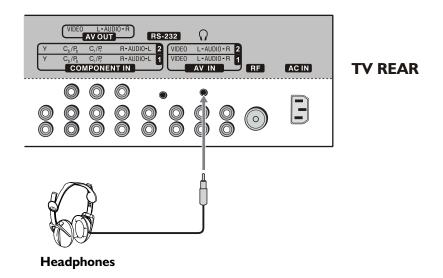


• Only TV programs, AVI, AV2 and SVIDEO input sources can be output through the AV output jacks.

Connecting Headphones

Insert the plug of the headphone into the TV's Headphone jack.

When using headphones, adjust the headphone volume so as to avoid excessive levels, as hearing damage may result.



Basic Operations

Turning On/Off the Power

■ Turning On

Insert the power cord into the wall outlet.

Press the **Power** button on the unit or on the remote control, the unit will be turned on and you will be ready to use its features.

Note

• You can also use CH+/- buttons on the TV set or CH+/-, O-9 number buttons on the remote control to turn on the TV.

■ Turning Off

With the power on, press the **Power** button on the unit or on the remote control to turn off the unit, and put the unit in standby mode. To cut off the power completely, please disconnect the AC power cord.

♦ Note

• If there is no signal input for a certain time, the TV will auto go to standby mode.

Selecting the Input Signal Source

- Press **INPUT** button.
- 2 Press ▼ or ▲ to select the input source.

Options include:

- **VGA**—Watch the signal from the VGA jack.
- **HDMI1** Watch the signal from the HDMI 1 input jack.
- **HDMI2** Watch the signal from the HDMI 2 input jack.
- **HDMI3** Watch the signal from the HDMI 3 input jack.
- **TV** Watch the TV signal.
- **AVI** Watch the signal from the AVI input terminals.
- AV2 Watch the signal from the AV2 input terminals.
- **SVIDEO** Watch the signal from the S-VIDEO input terminal.
- **YPBPRI** Watch the signal from the COMPONENT I input terminals.
- **YPBPR2** Watch the signal from the COMPONENT 2 input terminals.
- 3 Press ◀ or ▶ button to confirm the selection.

♦Note

- You can also make use of INPUT button on the TV set to select the input source.
- In other input source, you can quickly switch to TV mode by pressing CH+/- or 0-9 number buttons on the remote control.

Displaying the Status Information

Press the **DISPLAY** button to display the current status information such as channel number or signal source. If in TV mode, it will display information such as the channel number, air or cable mode, TV system and stereo mode.

On-Screen Menus Language Selection

- Press **MENU**.
- Press ◆ or ▶ to select **SYSTEM** menu, press ▼ to access the menu.
- 3 Press ▲ or ▼ to select OSD LANGUAGE, press ◆ or ▶ to select your desired language.
- 4 Press **MENU** twice to clear the menu screen.

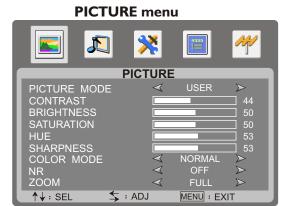




Basic Operations (Continued)

Main Menu Overview (TV mode)

List of main menus to help you with operations



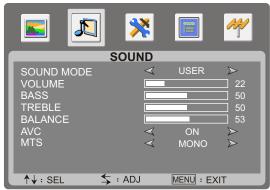
FUNCTION menu



TV-CHANNEL menu



SOUND menu



SYSTEM menu



♦Note

- Menu items that are not selectable are grayed out.
- The illustrations and on-screen displays in this manual are for explanation purposes (some are enlarged, others cropped) and may vary slightly from the actual ones.
- The above main menus are illustrated under TV mode. The menus and menu options may vary in different input mode.

To navigate through the OSD main menu

- With the power on, press **MENU** and the main menu screen displays.
- Press the ◀ or ▶ to select menu. Press ▼ to access the menu.
- 3 Within the menu, press ♠, ▼, ♠, ▶ to navigate through the options or adjust an option or enter a sub-menu.
- Press **MENU** to return to the previous menu. To exit the menu system, press **MENU** repeatedly. Or you may wait for some seconds (the duration depending on your system setting) and the on-screen menu will disappear from the screen automatically.

Note

• To clearly introduce the menu operations, this operation manual provides a description based on operation with the remote control.

Memorizing the Channels

When you turn on the TV for the first time, you should perform an auto channel search to set up stations on your TV. **Note**: Be sure to select the **TV** source input before operation.

Setting the AIR/CABLE Option

Before your TV can memorize the available channels, you must specify the type of signal source that is connected to the unit. (i.e., an antenna or cable system)

- Press **MENU** and the main menu screen displays.
- Press or to select TV-CHANNEL menu, press to access.
- 3 Highlight AIR/CABLE item, and then press ◀ or ▶ to select AIR or CABLE.

Select CABLE if using Cable TV, select AIR if using VHF/UHF antenna.



Auto Channel Search

You should perform an auto channel search to search for all channels available and stores them in memory.

- Press or to begin the auto channel search.
 The TV begins memorizing all the channels available in your area.

Note

• If you want to stop the auto scan, press **MENU** button.

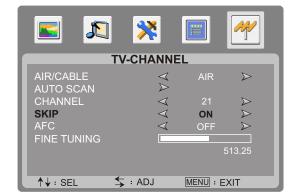


To Skip Unwanted Channels

After memorizing the channels, you can skip unwanted channels so that only the channels you want to watch are selected with Channel up/down buttons.

- Select the unwanted channel with channel select buttons.

 Or navigate to TV-CHANNEL menu, press ▼ to select CHANNEL item, press ◀ or ▶ to select the unwanted channel.
- 2 In TV-CHANNEL menu, press ▼ or ▲ to select SKIP item. Press ◀ or ▶ to select ON or OFF. If ON is selected, then the selected channel will be skipped. If OFF is selected, then the selected channel will not be skipped.
- If you want to skip other unwanted channels, repeat steps above to change the channel number and set **SKIP** to **ON**.
- 4 To exit, press **MENU** button repeatedly.



After exiting the menu, the channels will then be skipped when you select programs with the Channel up/down buttons.

♦ Note

• you can select the skipped channel by pressing the direct channel select buttons.

Memorizing the Channels & Channel selection

Manual Fine Tuning

Fine tuning is not necessary under normal conditions. However, in area of inferior broadcast conditions where adjustment is necessary for a better picture and sound, use Fine Tuning.

- Press **MENU**.
- Press or to select TV-CHANNEL menu, press to access.
- Press ▼ or ▲ to select **FINE TUNING** item, and then press ◆ or ▶ to fine tune the channel until the best possible picture and sound are achieved.

⊘Note

• If you perform manual fine tuning, the AFC function will be turned off automatically.

Auto Frequency Control (AFC)

If picture and sound's effect of the channel is instead poor by making use of Fine Tuning, you can correct them by making use of AFC.

- In **TV-CHANNEL** menu, press **▼** to select **AFC** item.
- Press or to select **ON** to turn on **AFC**. To turn off AFC, select **OFF**.
- 3 To exit, press **MENU** button repeatedly.



 ★ : ADJ

TV-CHANNEL

OFF

MENU: EXIT

513.25

D

AIR/CABLE

AUTO SCAN CHANNEL SKIP_____

FINE TUNING

↑↓: SEL

Channel Selection

You can select your desired TV program by one of the following methods.

■ Method I — Using direct channel select buttons (0 – 9)

Press the 0-9 number buttons to input a channel number directly and wait for some seconds, then it will go to the channel.

♦ Note

• you can select the skipped channel by pressing the direct channel select buttons.

■ Method 2— Using Channel up/down button

Press the **CH**+ or **CH**- to cycle among all available channels. The skipped channels can not be selected by Channel up/down button.

■ Method 3— Using Previous Channel (<) button

Press (to switch to the previously tuned channel.

Press () again to switch back to the currently tuned channel.

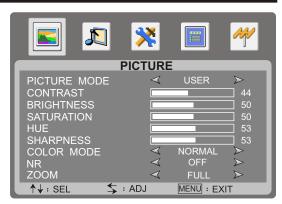
♦Note

Previous channel button will not work if no channel has been changed after TV is turned on.

Picture Adjustment

Adjusting the Picture

- Press **MENU** and the main menu screen displays.
- Press o r to select PICTURE menu, press to access the menu.
- Within the menu, press ▲, ▼, ◀, ▶ to navigate through the options or adjust an option. Press **MENU** to return to previous menu.



Option	Description
PICTURE MODE	Selects a desired picture mode. You can select from NATURAL, SOFT, BRIGHT and USER.
	NATURAL: Select for a natural picture.
	SOFT: Select for a finely detailed picture.
	BRIGHT: Select for a bright and vivid picture.
	USER: The picture quality you set.
Note: To quickly change	the picture mode, press the PICTURE button on the remote control repeatedly.
CONTRAST	Adjusts image contrast.
BRIGHTNESS	Adjusts screen brightness for easier viewing of dark picture such as night scenes and black hair.
SATURATION	Adjusts color saturation.
HUE	Adjusts hue for image.
SHARPNESS	Adjusts image sharpness and displays a sharp image.
COLOR MODE (Color Temperature)	Selects one of three automatic color adjustments. Sets to WARM to enhance hotter colors such as red, or set to COOL to see less intense colors with more blue. You can select from WARM COOL and NORMAL .
NR	Select from LOW/MID/HIGH to reduce noise in the picture, commonly called snow. Select OFF to turn off this function.
Note: You can quickly p	press the NR button on the remote control to activate the function.
ZOOM	You can select the aspect ratio (display proportions) according to your video signal type or personal preference. You can select from NORMAL, PANORAMA, 14:9, FULL, ZOOM I and ZOOM2.
	NORMAL: Selects the correct aspect ratio to match the source's image.(4:3 to 4:3,16:9 to 16:9)
	PANORAMA: Enlarges the picture to fill the 16:9 screen and at the same time still maintains a good aspect ratio at the center of the screen.
	14:9: Displays a 14:9 picture.
	FULL: Displays a full-screen picture.
	ZOOM1: Enlarges the picture vertically only. This mode is recommended for viewing "letter-box' movie (picture with a black bar on the top and bottom) with 16:9 format.
	ZOOM2: Enlarges the picture vertically only. Only the top portion of the picture will be cropped.
Note: You can bress the	e ZOOM button repeatedly to select a desired aspect ratio.

To Freeze the Picture

Press the **FREEZE** button to freeze the image on the screen(the video sources are still running). Press the button again to reactivate the image.



If a fixed image is displayed on the screen for a long time, that fixed image may become imprinted on the screen and remain visible.

Sound Adjustment

Adjusting the Volume

■ Using the volume buttons (VOL+ and VOL -)

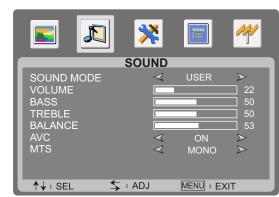
Press the **VOL** + or **VOL**- to increase or decrease the volume.

Using the Mute

Press the MUTE button to temporarily turn offall sound. To restore the sound, press the MUTE button again.

Adjusting the Sound

- Press **MENU** and the main menu screen displays.
- Press ◆ or ▶ to select **SOUND** menu, press ▼ to access the menu.
- Within the menu, press ▲ or ▼ to navigate through the options, press ◀ or ▶ to adjust an option. Press **MENU** to return to previous menu.



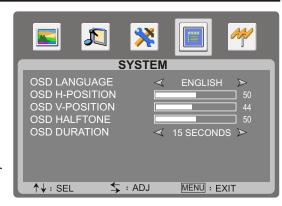
Option	Description
SOUND MODE	Selects a desired sound mode. You can select from NEWS , MOVIE , MUSIC and USER .
	NEWS: Select for a news or conversation program.
	MOVIE: Select for a movie program.
	MUSIC: Select for a music program.
	USER: The sound quality you set.
Note: To quickly change	the sound mode, press the SOUND button repeatedly.
VOLUME	Adjusts sound volume.
BASS	Adjusts Bass (low sounds)
TREBLE	Adjusts Treble (high sounds).
BALANCE	Adjusts volume balance (left and right volumes).
AVC (auto volume control)	Select ON to equalize overall volume levels across all channels. Select OFF to turn off the auto volume control.
MTS	Use this item to select a stereo mode as a default mode when you switch your TV program. You can select from [MONO], [STEREO] and [SAP].
	MONO: Select for mono reception. Use to reduce noise during weak stereo broadcasts.
	STEREO: Select for stereo reception when viewing a program broadcast in stereo.
Note:	SAP: Select to automatically switch the TV to second audio programs when this signal is received.

- To quickly select a stereo mode, press the MTS button repeatedly.
- STEREO or SAP can be selected only when the TV station transmits these signals.
- MONO sound is automatically received if the broadcast is only in MONO.
- Select MONO if you are having difficulty receiving a stereo signal.

System Setup

On-Screen Display Setting

- Press **MENU** and the main menu screen displays.
- 2 Press ◆ or ▶ to select **SYSTEM** menu, press ▼ to access the menu.
- Within the menu, press ▲, ▼, ◀, ▶ to navigate through the options or adjust an option. Press **MENU** to return to previous menu.

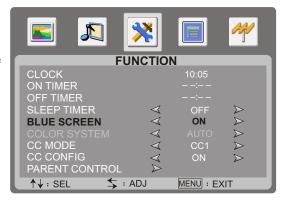


Option	Description	
OSD LANGUAGE	Selects on-screen menus language.	
OSD H-POSITION	Adjusts on-screen menu's horizontal position.	
OSD V-POSITION	Adjusts on-screen menu's vertical position.	
OSD HALFTONE	Adjusts on-screen menu background transparency.	
OSD DURATION	Selects OSD main menu displaying time.	

Setting Blue Screen

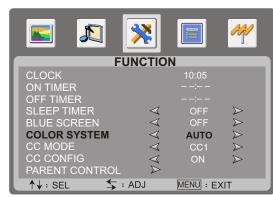
- Press **MENU** and the main menu screen displays.
- Press ◆ or ▶ to select **FUNCTION** menu, press ▼ to access the menu.
- Press ▲ or ▼ to select **BLUE SCREEN**, then press ◀ or ▶ to turn on/off blue screen.

If the BLUE SCREEN function is turned on, the TV will display a blue screen when there is no input signal. (Only in TV mode)



Setting Color System

- Press **MENU** and the main menu screen displays.
- Press ◆ or ▶ to select **FUNCTION** menu, press ▼ to access the menu.
- 3 Press ▲ or ▼ to select **COLOR SYSTEM**, then press ◆ or ▶ to select a proper color system for video input. Normally please select **AUTO**.



⊘Note

- The COLOR SYSTEM item is adjustable only in AVI, AV2 and SVIDEO mode.
- Normally please set the color system to AUTO, and the set can automatically identify the color system. If the color of video input is still abnormal, then select the proper color system manually.

Timer Setup & Closed Captions

Clock and Timer Setting

You can make use of FUNCTION menu to set current time for the TV. Also you can set timer (including ON timer, OFF timer and SLEEP timer) through the FUNCTION menu.

- Press **MENU** and the main menu screen displays.
- Press ◀ or ▶ to select **FUNCTION** menu, press ▼ to access the menu.
- Press ▲ or ▼ to select your desired item. Use 0 9 number buttons to input the time value directly.

To set sleep timer, highlight **SLEEP TIMER**, then press ◆ or ▶ to select the time. To cancel the sleep timer, select **OFF**.



Option	Description
CLOCK	Sets current time for the TV.
ON TIMER	Sets a start time so that the TV automatically turns on at the preset time.
OFF TIMER	Sets a time so that the TV automatically turns off at the preset time.
SLEEP TIMER	Selects the amount of time before your TV turns itself off automatically.

♦ Note

- To set CLOCK/ON TIMER/OFF TIMER, use 0 9 number buttons to directly input the time value.
- ON TIMER/OFF TIMER operates only if current time has been set.
- The TV must be in standby mode for the ON TIMER to work.
- If the TV loses power, the timer setting will be cleared.
- When the last I minute comes before OFF timer, the TV will remind you the remaining time to be turned off. To exit, you can press any button.

Closed Captions

You can make use of FUNCTION menu to turn on/off Closed Caption, to set Closed Caption.

- Press **MENU** and the main menu screen displays.
- Press ◆ or ▶ to select **FUNCTION** menu, press ▼ to access the menu.
- 3 Press ▲ or ▼ to select CC MODE or CC CONFIG item, then press
 ♠ or ▶ to select your desired option.



Option	Description		
CC MODE	Allows you to select closed caption options.		
	CC1, CC2, CC3, CC4	Displays a printed version of the dialog or sound effects of a program. (Should be set to CCI for most programs.)	
	T1,T2, T3,T4	Displays network/station information presented using either half or the whole screen (if available).	
CC CONFIG	Allows you t	to select CAPTION ON, ON MUTE or OFF .	
	ON: Turns on the Closed Captions.		
	ON MUTE : Turns on the Closed Captions when the TV is muted.		
	OFF: Turns	off the Closed Captions.	

♦Note

- The caption feature only works in TV, AV I, AV2 and SVIDEO modes.
- Not all the TV programs and videos will offer closed captioning.

Setting Parental Control

Parental Control enables parents to prevent their children from watching inappropriate material on TV. Parental Control reads the ratings for programming (except for news, sports, unedited movies on premium cable and Emergency System signals), then denies access to programming if the program's rating meets the limitations you select. In this case, the program will be blocked.

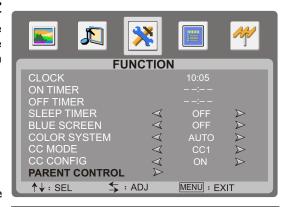
To use the Parental Control function, you first need to set your password.

To set a password

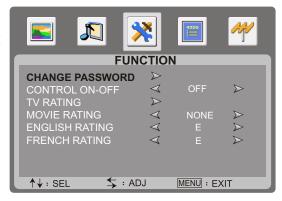
- Press **MENU** and the main menu screen displays.
- Press ◆ or ▶ to select **FUNCTION** menu, press ▼ to access the menu.
- Press ▲ or ▼ to select **PARENT CONTROL** item, then press ✓ or ▶ to access. Now a password is required to input.
- 4 Press **0 9 number** buttons to input the password(4-digit, the default password is 0000 and you should change it). Now PARENT CONTROL menu opens.
- 5 Highlight CHANGE PASSWORD item, press ◆ or ▶ to access.
- 6 Enter the new password using 0 9 buttons.
- 7 Enter the same password again to confirm. Now the screen will go back to PARENT CONTROL menu, the new password has been created successfully.

Note

- To avoid forgetting the password, write it down and keep it in the safe place.
- If you do forget the password, you may use master password (2580) to access the PARENT CONTROL menu and set a new password. Do not let children know it.







NEW PASSWORD * * - -

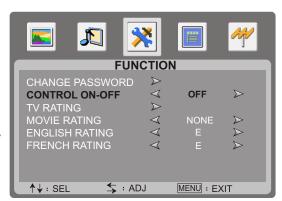
ENTER IT AGAIN*---

To Enable Parental Control

- Use password to access **FUNCTION-PARENT CONTROL** menu.
- Press ▲ or ▼ to select **CONTROL ON-OFF** item, then press ◆ or ▶ to turn the PARENT CONTROL **On** or **Off**.

To enable the blocking scheme you set up, you should set to ON. To disable the blocking scheme you set up, please set it to OFF.

Press **MENU** to return to previous menu. Press **MENU** repeatedly to clear the menu screen.



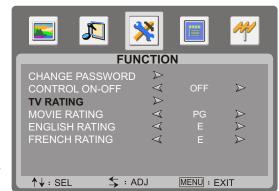
Setting Parental Control (Continued)

You can make use of PARENT CONTROL menu to setup ratings including TV RATING, MOVIE RATING, ENGLISH RATING and FRENCH RATING.

Rating Setup

- Use password to access **FUNCTION-PARENT CONTROL** menu.
- Press ▲ or ▼ to select rating item, then press ◆ or ▶ to adjust.
- To setup TV RATING, highlight TV RATING item and then press or to access the sub-menu.

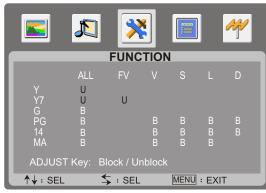
In the TV RATING sub-menu, use \blacktriangle , \blacktriangledown , \blacklozenge to navigate and select, use **ADJUST** button to either block the rating ("B" will appear) or unblock ("U" will appear).



Option	Description	
TV RATING		programs, according to the ratings limit set. TV etters added to the basic rating to let parents know sex, adult language or suggestive dialogue.
MOVIE RATING	Blocks movies according to the movie ratings limits specified, so children can not view certain movies. You can set the ratings limit by blocking out all the movies with the ratings above a specified level. Keep in mind that the movie ratings limit only applies to movies shown on TV, not TV programs, such as soap operas.	
ENGLISH RATING FRENCH RATING	Canadian custom ratings.	Below is an example of TV RATING sub-menu

US Custom Rating Options

os custom rating options		
	Description	
Age-l	Age-Based Options	
Y	All children.	
Y7	Directed to children age 7 and older.	
G	General audience.	
PG	Parental guidance suggested.	
14	Parents strongly cautioned.	
MA	Mature audience only.	
Content-Based Options		
FV	Fantasy violence.	
V	Violence.	
S	Sexual situations.	
L	Strong language.	
D	Suggestive dialog.	
G	All children and general audiences.	
PG	Parental guidance suggested.	
Pg13	Parental guidance for children under 13.	
R	Restricted viewing, parental guidance is suggested for children under 17.	
NC17	No one 17 and under admitted.	
X	Adult only.	
NONE	Not rated.	
	Age-I Y Y7 G PG 14 MA Conto V S L D G PG Pg13 R NC17	



Canadian Custom Rating Options

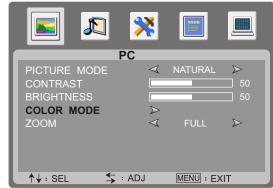
		J
Option		Description
ENGLISH	E	Exempt – Exempt programming.
RATING	С	All children.
	C8+	Children 8 years and older.
	G	General programming.
	PG	Parental guidance.
	14+	Viewers 14 and older.
	18+	Adult programming.
FRENCH	E	Exempt – Exempt programming.
RATING	G	General programming.
	8ans+	Not recommended for ages under 8.
	13ans+	Not recommended for ages under 13.
	I6ans+	Not recommended for ages under 16.
	18ans+	Adult programming.

Image Adjustments for VGA(PC) Mode

Before adjusting the image, make sure that you select the correct source (VGA).

To Adjust the PC Image

- In VGA mode, press **MENU** and the main menu screen displays.
- Press ◀ or ▶ to select **PC** menu, press ▼ to access the menu.
- Press ▲, ▼, ◀, ▶ to navigate through the options or adjust an option or access its sub-menu.
- If you want to customize the color temperature, highlight COLOR MODE, then press (or) to access the sub-menu. Set COLOR **TEMP.** to **USER** and now you can adjust the colors RED, GREEN and BLUE of the image separately.
- Press **MENU** to return to previous menu. Press **MENU** repeatedly to clear the menu screen.

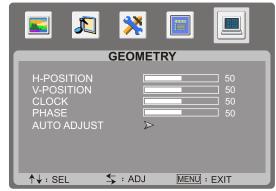




Option	Description
PICTURE MODE	Selects a desired picture mode. You can select from NATURAL, SOFT, BRIGHT and USER.
Note: To quickly change	the picture mode, press the PICTURE button on the remote control repeatedly.
CONTRAST	Adjusts image contrast.
BRIGHTNESS	Adjusts screen brightness for easier viewing of dark picture such as night scenes and black hair.
COLOR MODE (Color Temperature)	Selects color temperature. Sets to WARM to enhance hotter colors such as red, or set to COOL to see less intense colors with more blue, or set to NORMAL to get normal color. You can also select the USER color temperature and now you can adjust the colors RED, GREEN and BLUE of the image separately.
ZOOM	Selects the aspect ratio (display proportions). You can select from NORMAL and FULL . Select NORMAL to display a 4:3 picture, select FULL to display a full-screen picture.
Note: You can press the	ZOOM button directly to select a desired aspect ratio.

To Adjust Image Geometry

- In VGA mode, press **MENU** and the main menu screen displays.
- Press ♦ or ▶ to select **GEOMETRY** menu, press ▼ to access the
- Press ♠, ▼, ◀, ▶ to navigate through the options or adjust an option.
- Press **MENU** repeatedly to clear the menu screen.



Option	Description
H-POSITION	Moves the image on the screen left or right.
V-POSITION	Moves the image on the screen up or down.
CLOCK	Adjusts the sample frequency.
PHASE	Improves the focusing of a stable image.
AUTO ADJUST	Selects and activates to start auto adjustment. The set automatically adjusts the image settings, such as position and phase.

Note: You can directly press the ADJUST button on the remote control to start auto adjustment.

Troubleshooting

If, after reading these operating instructions, you have additional questions related to the use of your television, please call the services center in your local area.

Before calling service, please check the symptoms and follow suggested solutions.

Remote Control

Problem	Possible Solutions	
Remote control does not operate	 The batteries could be weak. Replace the batteries. Check the orientation of the batteries. Make sure the power cord is plugged in. 	

Video and Audio

Problem	Possible Solutions
No picture (screen not lit), No sound	 Make sure the power cord is plugged in. Press POWER on the TV or on the remote control. Try another channel; it could be station trouble.
Dark, poor or no picture (Screen lit), good sound	 Select a proper picture mode. Adjust the brightness in the video setting. Check the antenna/cable connections.
No color/dark picture/color is not correct	Adjust the color saturation in the video setting.
Only snow and noise appear on the screen	 Check the antenna/cable connections. Try another channel; it could be station trouble.
Dotted lines or stripes	 Adjust the antenna. Move the TV away from noise sources such as cars, neon signs, or hair dryers.
Double images	 Using a highly directional outdoor antenna or a cable may solve the problem.
Good picture, no sound	 The sound may be muted. Press MUTE again to cancel. Make sure the stereo mode is set to stereo or mono.
Audio noise	 Communication problems may occur if infrared communication equipment (e.g., infrared cordless headphones) is used near the TV. Move the infrared communication equipment away from the TV until the noise is eliminated.

Troubleshooting (Continued)

General

Problem	Possible Solutions
One or some channels can't be displayed	 These channels may be blocked. Please unblock them (see <setting control="" parental=""> section).</setting> These channels may be set skipped. You may set it to not skipped or select them with 0-9 number buttons.
Lost password	 You may use the super password (2580) to access the Parent Control menu and set a new password. Please remember your new password and keep it carefully.
Some items can't be accessed	• If a setting option appears in gray, this indicates that the settings option is unavailable in current input mode.
TV cabinet creaks	 When the TV is in use, there is a natural rise in temperature, causing the cabinet to expand or contract and may be accompanied by a slight creaking noise. This is not a malfunction.
Control buttons do not operate	Disconnect the power cord and wait for a few seconds. Then re-plug the power cord and turn on the unit again.

Plasma Display panel

Problem	Possible Solutions
Some parts of the screen do not light up.	The plasma display panel is manufactured using an extremely high level of precision technology, however, sometimes some parts of the screen may be missing picture elements or have luminous spots. This is not a malfunction.
After-images appear	Do not allow a still picture to be displayed for an extended period, as this can cause a permanent after-image to remain on the Plasma Display. Examples of still pictures include logos, video games, computer images, teletext and images displayed in 4:3 mode. Note:
	The permanent after-image on the Plasma Display resulting from fixed image use is not an operating defect. This product is not designed to display fixed images for extended periods of time.
Snapping sounds may be heard from the display unit.	This sound is produced when the cabinet expands or contracts due to variations in temperature and is not a malfunction.



If your problem is not solved, turn your unit off and then on again.

Cautions:

Never attempt to repair a defective TV yourself.

Specifications

Туре:		PDPTV
Panel:		32"
TV system:		NTSC-M
Receiving Channel:		VHF 2-13, UHF 14-69, CATV 1-125
Audio multiplex:		BTSC System
Audio out:		8W × 2
Power Requirement:		AC 100 – 240 V, 50/60 Hz
Power Consumption:		250 W
Dimensions (WXHXD):		841 × 632 × 270 (mm)
Weight:		46.2 lbs/2 l kg
Terminals:		
	Composite Video/Audio(L/R):	2
	S-video:	I
z	Component Video/Audio(L/R):	2
_	HDMI interface:	3
	VGA/Audio:	I
	Antenna:	I
5	Composite Video/Audio(L/R):	I
OUT	Headphone jack:	I
CONTROL	RS-232:	I

⊘Note

- 1. Design and specifications are subject to change without notice.
- 2. Weight and dimensions shown are approximate.
- 3. Specifications and external appearance may be changed for the sake of improvement.